

**Notice of Allowability**

Application No.

10/549,615

Examiner

Linh V. Nguyen

Applicant(s)

HOSHINO ET AL.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/27/06.
2. ☒ The allowed claim(s) is/are 8-13.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

1. This office action is in response to communication filed on 9/27/06. Claims 1 – 7 have been canceled. Claims 8 – 13 have been added.

### ***Allowable Subject Matter***

2. Claims 8 – 13 are allowed.
3. The following is an examiner's statement of reasons for allowance:

With respect to claim 8, in addition to other elements in the claim, prior art considered individual or combination does not disclose a coding apparatus comprising: an arrangement axis exchanger that exchanges part of the bit arrangements so that the determined bit arrangements of the parity bits are different from one another, and the mapping section performs symbol mapping on the systematic bits in the determined bit arrangements and perform symbol mapping on the parity bits in the exchanged bit arrangements.

With respect to claim 9, in addition to other elements in the claim, prior art considered individual or combination does not disclose apparatus comprising: an arrangement axis exchanger that exchanges arrangement axes of coordinates to perform the determined bit arrangements; a mapping section that performs symbol mapping on the systematic bits and the parity bits at the bit arrangements on the coordinates after the axes are exchanged.

With respect to claim 10, in addition to other elements in the claim, prior art considered individual or combination does not teach or suggest a coding apparatus

comprising: a bit arrangement determiner that determines bit arrangements of the systematic bits and the parity bits according to the applied modulation scheme, and changes the bit arrangements of the systematic bits and the parity bits according to the detected number of retransmissions; a mapping section that performs symbol mapping on the systematic bits and parity bits in the determined bit arrangements.

With respect to claim 11, in addition to other elements in the claim, prior art considered individual or combination does not teach or suggest a coding method comprising: exchanging part of the bit arrangements so that the determined bit arrangements of the parity bits are different one another; performing symbol mapping on the systematic bits in the determined bit arrangements and performing symbol mapping on the parity bits in the exchanged bit arrangements.

With respect to claim 12, in addition of other elements in the claim, prior art considered individual or combination does not teach or suggest a coding method comprising: exchanging arrangement axes of coordinates to perform the determined bit arrangements; performing symbol mapping on the systematic bits and the parity bits in the bit arrangements on the coordinates after the arrangement axes are exchanged.

With respect to claim 13, in addition of other elements in the claim, prior art considered individual or combination does not teach or suggest a coding method comprising: determining bit arrangements of the systematic bits and the parity bits according to the applied modulation scheme, and changing the bit arrangements of the systematic bits and the parity bits according to the detected number of retransmissions;

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performing symbol mapping on the systematic bits and parity bits in the determined bit arrangements.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Prior Art***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

***Contact Information***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh Van Nguyen whose telephone number is (571) 272-1810. The examiner can normally be reached from 8:30 – 5:00 Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Rexford Barnie can be reached at (571) 272-7492. The fax phone numbers for the organization where this application or proceeding is assigned are (571-273-8300) for regular communications and (571-273-8300) for After Final communications.

**LINH NGUYEN  
PRIMARY EXAMINER**

11/1/06

Linh Van Nguyen



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